



After-Action Report

Wentworth-Douglass Hospital Medical Services Drill

NextEra Energy Seabrook Station

Exercise Date: April 11, 2023

Final After-Action Report Date: May 26, 2023



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Executive Summary

On April 11, 2023, a medical services (MS-1) drill was conducted at Wentworth-Douglass Hospital in Dover, New Hampshire. The purpose of this drill was to assess the capabilities of the City of Dover Fire and Rescue Emergency Medical Services Ambulance personnel and the Wentworth-Douglass Hospital Response team members to respond to a radiological incident involving Seabrook Station. This drill was held in accordance with FEMA's policies and guidance concerning the exercise of state and local radiological emergency response plans (RERP) and procedures.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this important medical services drill, including staff from the New Hampshire Department of Health and Human Services (DHHS), Bureau of Public Health Radiological Protection Section, Wentworth-Douglass Hospital Response team members, Nuclear Medicine Radiation Control team members, Radiation Safety Officer (RSO), supporting Hospital Emergency Departments' Staff, City of Dover Fire and Rescue Emergency Medical Services Ambulance personnel, and the New Hampshire Department of Homeland Security & Emergency Management (NH HSEM).

Protecting the public health and safety is the full-time job for some of the drill participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during this drill.

This report contains the final evaluation of the MS-1 drill.

The City of Dover Fire and Rescue Emergency Medical Services Ambulance personnel and the Wentworth-Douglass Hospital Response team members successfully demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Level 1 or Level 2 Findings and no Planning Issues identified during the conduct of this drill.

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Section 1. Introduction

On December 7, 1979, President Carter directed FEMA to assume the lead responsibility for offsite radiological planning and preparedness. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351, and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program, which was established following the Three Mile Island Nuclear Station accident in March 1979.

44 CFR 350 established the policies and procedures for FEMA's initial and continued approval of state and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on state and local government participation in joint exercises with licensees.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning and the review and evaluation of RERP's and procedures developed by state and local government;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by state and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, VOL. 58, No. 176, September 14, 1993); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:

- U.S. Department of Commerce
- U.S. Nuclear Regulatory Commission
- U.S. Environmental Protection Agency
- U.S. Department of Energy
- U.S. Department of Health and Human Services
- U.S. Department of Transportation
- U.S. Department of Agriculture
- U.S. Department of the Interior
- U.S. Food and Drug Administration

Representatives of these agencies serve on the FEMA Region I Regional Assistance Committee (RAC), which is chaired by the FEMA Regional RAC Chairperson.

Formal submission of the RERPs for the Seabrook Station to FEMA Region I by the State of New Hampshire, the Commonwealth of Massachusetts, and local jurisdictions, occurred in September 1987, and May 1992, respectively. Formal approval of the RERPs was granted by FEMA in June 1988 and June 1992, respectively under 44 CFR 350.

A MS-1 drill was conducted on April 11, 2023 and evaluated by FEMA Region I to assess the capabilities of the City of Dover Fire and Rescue Emergency Medical Services Ambulance personnel and the Wentworth-Douglass Hospital Response team members in implementing their radiological emergency response plans and procedures to protect public health and safety during a radiological emergency involving the Seabrook Station. The purpose of this report is to present the drill results and findings on the performance of the offsite response organizations (OROs) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the FEMA Region I RAC Chairperson.

The capability targets utilized in the FEMA evaluation process are contained in the following:

- NUREG-0654/FEMA-REP-1, Rev. 2, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- FEMA Radiological Emergency Preparedness Manual, December 2019.

Section III of this report, entitled "Drill Evaluation, Capability Targets and Results," presents detailed information on the demonstration of applicable exercise objectives.

Section 2. Drill Evaluation, Capability Targets and Results

Contained in this section are the results and findings of the evaluation of the City of Dover Fire and Rescue Emergency Medical Services Ambulance personnel and the Wentworth-Douglass Hospital Response team members in Dover, New Hampshire, that participated in the April 11, 2023, MS-1 drill to test their medical service capabilities to respond to an incident involving Seabrook Station.

2.1: City of Dover Fire and Rescue Emergency Medical Services Ambulance Personnel, Dover, New Hampshire

During the Seabrook Station evaluated Medical Services drill on April 11, 2023, Dover Fire and Rescue Emergency Medical Services Ambulance personnel successfully demonstrated their ability to respond to and provide basic treatment to an injured and potentially contaminated individual, and to prepare the injured individual for transport to Wentworth-Douglass Hospital Emergency Department.

Capability Target 2.2 Emergency Worker Exposure Control Management Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. Planning reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, and O.1); and

Capability Target 5.3 Transportation and Treatment of Contaminated, injured individuals. Transport contaminated, injured individuals to medical facilities with the capability to monitor and decontaminate. Planning reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.d, F.2, H.11, H.12, J.2, K.3, K.4, L.1, L.3, L.4, and O.1)

- a. MET: Capability Target: 2.2, 5.3
- b. LEVEL 1 FINDINGS: None
- c. LEVEL 2 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

2.2: Wentworth-Douglass Hospital Response Team Members, Dover, New Hampshire

During the Seabrook Station evaluated Medical Services drill on April 11, 2023, Wentworth-Douglass Hospital Response team members successfully demonstrated their ability to respond to and provide basic treatment to an injured and potentially contaminated individual. They also successfully demonstrated emergency worker exposure control management in accordance with their plans and procedures.

Capability Target 2.2 Emergency Worker Exposure Control Management Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. Planning reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, and O.1); and

Capability Target 5.3 Transportation and Treatment of Contaminated, injured individuals. Transport contaminated, injured individuals to medical facilities with the capability to monitor and decontaminate. Planning reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.d, F.2, H.11, H.12, J.2, K.3, K.4, L.1, L.3, L.4, and O.1)

- a. MET: Capability Target: 2.2, 5.3
- b. LEVEL 1 FINDINGS: None
- c. LEVEL 2 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

Section 3: Appendices

3.1: Appendix A: Drill Evaluators

The following personnel evaluated the Medical Services drill for Seabrook Station conducted on April 11, 2023.

<u>Evaluation Site</u>	<u>Capability Targets</u>	<u>Evaluators</u>	<u>Organization</u>
Dover Fire and Rescue	2.2, 5.3	Barbara Thomas	DHS/FEMA
Wentworth-Douglass Hospital	2.2, 5.3	Helen LaForge	DHS/FEMA

3.2: Appendix B: Extent-of-Play

Please see attached.

Wentworth Douglass Hospital MS-1

Seabrook Station

Radiological Emergency Preparedness (REP) Program

Out-of-Sequence Exercise Extent-of-Play Agreement

April 11, 2023

Extent-of-Play Agreement

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Section 1: Exercise Overview

Overarching Purpose

This extent-of-play agreement identifies the standards used to conduct, control, and evaluate the Wentworth Douglass Hospital MS-1 for Seabrook Station, in accordance with Capability Targets 2.2 and 5.3, as agreed to by Wentworth Douglass Hospital and the Exercise Director for New Hampshire Homeland Security and Emergency Management.

Executive Summary

This exercise will demonstrate the capabilities of the Dover Fire Department ambulance service and Wentworth Douglass Hospital to transport, treat, and manage cross-contamination for an injured and contaminated patient in a Seabrook Station event.

Identified Exercise Objectives and Core Capabilities

Exercise Objective	Aligned Core Capability
Alert and Notification	Operational Communications
Transportation of Contaminated, Injured Individuals	Emergency Medical Services
Treatment of Contaminated, Injured Individuals	Healthcare
Emergency Worker Exposure Control	Health and Safety

Section 2: Extent-of-Play Agreement

Standards & References

The following plans, and procedures will support exercise play:

Wentworth-Douglass Hospital Emergency Operations Plan

Wentworth-Douglass Radiological Emergency Response Procedure (CODE R)

State of New Hampshire Patient Care Protocols version 8.1

DHS FEMA Program Manual Radiological Emergency Preparedness FEMA P-1028/December 2019

Exercise Parameters

The functional MS-1 exercise will take place on Tuesday, April 11 at Wentworth Douglass Hospital, located at 789 Central Avenue in Dover, New Hampshire. Both hospital and ambulance demonstrations will occur at this site. Wentworth-Douglass Hospital and Dover Fire Department EMS staff will be evaluated.

Exercise Participants

Participant	Exercise Role	Expected Level of Play
Brennen Brunner	Lead/ER Controller	Controller
Courtney Jordan	Ambulance Controller	Controller
Scott Carpenter	WDH Emergency Manager	Player
WDH Staff	Emergency Department	Players
Dover FD EMS Staff (2)	Ambulance	Players
Jill Piwoski	Patient	Players

Signatures & Conditions

The following agree to support this exercise as described herein:

Exercise Director	Representative of Participating Organization
Brennen Brunner – Exercise Director NH HSEM – Sponsoring Agency	Scott Carpenter Program Manager, Emergency Preparedness Wentworth-Douglass Hospital

Section 3: Back-up Documentation

A summary of the exercise scenario will accompany the submitted Extent-of-Play

Section 4: Acronyms

Acronym	Term
ETA	Estimated Time of Arrival
PPE	Personal Protective Equipment
REA	Radiation Emergency Area
WDH	Wentworth Douglass Hospital

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